GREAT BARRIER REEF MARINE PARK WHALE AND DOLPHIN CONSERVATION. *(ABSTRACT)* In February 2000, the Great Barrier Reef Marine Park Authority finalised *a Whale and Dolphin Conservation Policy* intended to guide management decisions concerning human activities that will, or are likely to, affect the cetacean populations occurring in the Great Barrier Reef Marine Park. The policy focuses on minimising potential adverse effects on cetaceans arising from a variety of human activities, including shipping and boating, deliberate feeding, defence activities, marine construction, coastal development and fishing.

The policy also includes elements relating to management of commercial and recreational whalewatching activities, many of which focus on humpback whales (*Megaptera novaeangliae*). In addition, specific provisions are included for whalewatching activities that involve people swimming, snorkelling, or scuba diving with the animals. Whalewatching can provide people not only with an enjoyable opportunity to observe the animals, but also promote increased understanding of the animals and their needs. Whalewatching operations can provide information on the distribution, relative abundance and behaviour of cetaceans, which facilitates effective management. However, these benefits must be weighed against the variety of potential adverse effects of this activity, which require careful management in cooperation with the whalewatching industry.

Within the Great Barrier Reef Marine Park, whalewatching activities will be managed through a combination of education, best practices guidelines, codes of conduct, regulations, cetacean refuges and, for commercial tour operations, permits. Whalewatching operations are recognised as a source of important information about the animals, and the potential for the commercial whalewatching industry to become self-regulating is acknowledged.

Copies of the policy may be obtained from GBRMPA or via the website www.gbrmpa.gov.au.

Kirstin Dobbs, Great Barrier Reef Marine Park Authority, PO Box 1379, Townsville 4810, Australia (e-mail: k.dobbs@gbrmpa.gov.au); Cheri Recchia, Center for Marine Conservation, 1725 DeSales Street, NW #600, Washington, D.C. 20036, USA; Tony Stokes, Great Barrier Reef Marine Park Authority, PO Box 1379, Townsville 4810, Australia; 29 August 2000.

WHY HUMPBACK WHALES NEED A SOUTH PACIFIC SANCTUARY. *(ABSTRACT)* Humpback whales in the South Pacific have been severely depleted by commercial whaling activities of the past two centuries. Sail whalers of the Nineteenth Century took significant numbers on their South Pacific breeding grounds, but pelagic fleets operating on the feeding grounds of the Southern Ocean during the Twentieth Century grossly over-exploited these populations. New data reveal the extent of the illegal, unreported whaling of past Soviet factory ship operations in the 1950s and 1960s, which were largely focused on the feeding grounds to the south of Polynesia and New Zealand. Since the collapse of the New Zealand whaling industry in 1963, there have been few reports of humpback whales (*Megaptera novaeangliae*) on their traditional migration routes. Photo-identification studies in Vava'u, Tonga, illustrate how close the Tongan humpback population may have come to extirpation. The same is probably true of all the known breeding grounds in the South Pacific region. The gross, and relatively recent, over-exploitation of the region's humpbacks provides a strong case for protection through a whale sanctuary. Recovering whale populations, which can be best provided for through a sanctuary, would provide valuable economic benefits to the region, and would not threaten fish resources.

Mike F. Donoghue, Department of Conservation, PO Box 10420, Wellington, New Zealand (e-mail: donoghue@ihug.co.nz); 29 August 2000.

COMPUTER-ASSISTED MATCHING OF HUMPBACK WHALE PHOTO-IDENTIFICATION PHOTOGRAPHS. *(ABSTRACT)* To assist in matching humpback whale (*Megaptera novaeangliae*) identification photographs, a digital image/database system has been developed based on the successful video disc/database system used for Northern Hemisphere humpback whales (Mizroch et al., 1990). Digitally scanned photographs of tail fluke undersides or body flanks are stored in a database as graded images such that a likely group of possible matches is produced when the database is queried. The group of images is viewed to determine whether a match exists. The architecture of the database allows for the easy exchange of just the graded images between research groups for possible matching through storage on CD-ROM discs. From whales photographed off Western Australia, 1990- 1998, some 4,000 images of some 2,000 individually-identified animals are currently available. Comparisons within the database and with others, which would have been physically too demanding using earlier manual methods, will now permit analyses of individual animal life histories and prediction of migratory movements. Suggested strategies and workflow issues for digitisation, long-term image storage, image manipulation software and hardware options are discussed. The system is currently available free from the author (mailto:elford@mac.com) or the Centre for Whale Research (WA) and will be available on the world-wide-web along with a users group.

Literature Cited

MIZROCH, S.A., BEARD, J.A & LYNDE, M. 1990. Computer Assisted Photo-identification of Humpback Whales. Reports of the International Whaling Commission (Special Issue 12): 63-70.

Douglas Elford, The Western Australian Museum, Francis Street, Perth 6000; Curt Jenner, Centre for Whale Research (WA) Inc., PO Box 1622, Fremantle 6959, Australia; 29 August 2000.